

LISTING OF CLAIMS

1. (Currently amended) A method for reducing tumor mass comprising the step of administering to ~~an individual~~ a patient suffering from cancer an amount of a Herpes simplex virus (HSV) comprising a modified HSV genome wherein said modification comprises a modification of an inverted repeat region of said HSV genome such that only one $\gamma_134.5$ gene expresses an active gene product, wherein said administering results in one or more tumor cells infected with said HSV, said amount of HSV being effective to reduce tumor mass.

2. (Previously presented) The method of claim 1 wherein the modification of the inverted repeat region of the genome comprises an alteration such that the region is rendered incapable of expressing an active gene product from only one copy each of ICP0, ICP4, ORF0, ORF1, and $\gamma_134.5$.

3. (Previously presented) The method of claim 2 wherein the modification comprises an insertion of a DNA sequence comprising one or more nucleotides.

4. (Previously presented) The method of claim 2 wherein the modification comprises a deletion.

5. (Previously presented) The method of claim 1, 2, 3, or 4 wherein the modified HSV genome further comprises deletion of a gene selected from the group consisting of $\alpha 0$, U_L2 , U_L3 , U_L4 , U_L10 , U_L11 , U_L12 , $U_L12.5$, U_L13 , U_L16 , U_L20 , U_L21 , U_L23 , U_L24 , U_L39 , U_L40 , U_L41 , U_L43 , $U_L43.5$, U_L44 , U_L45 , U_L46 , U_L47 , U_L50 , U_L51 , U_L53 , U_L55 , U_L56 , $\alpha 22$, $U_S1.5$, U_S2 , U_S3 , U_S4 , U_S5 , U_S7 , U_S8 , $U_S8.5$, U_S9 , U_S10 , U_S11 , $\alpha 47$, $OrisTU$, and $LATU$.

6. (Original) The method of claims 1, 2, 3, or 4 wherein the cancer is a noncentral nervous system cancer.

7. (Original) The method of claim 1, 2, 3, or 4 wherein the cancer is a central nervous system cancer.

8. (Currently amended) The method of claim 5 wherein the cancer is ~~non-central~~ noncentral nervous system cancer.

9. (Original) The method of claim 5 wherein the cancer is a central nervous system cancer.

10. (Currently amended) The method of claim 5 wherein the gene is selected from the group consisting of U_L16, U_L24, U_L40, U_L41, U_L55, U_L56, α 22, U_S4, U_S8, and U_S11.

11. (Previously presented) The method of claim 5 wherein the HSV comprises deletions of U_L24 and U_L56.

12. (Previously presented) The method of claim 3 wherein the DNA sequence encodes HSV-2 glycoproteins G, J, D, and I.

13. (Previously presented) The method of claim 8 wherein the modified HSV is R7020.

14. (Previously presented) The method of claim 9 wherein the modified HSV is R7020.

15. (Currently amended) The method of ~~claims~~ claim 1, 2, 3, or 4 wherein the HSV genome comprises an insertion of an expressible non-natural protein coding sequence under the control of a herpes simplex virus promoter.

16. (Currently amended) The method of claim 2 wherein the modified HSV is administered to the tumor by direct injection.